

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, Mail Stop Appeal Brief - Patents, Box 1450, Alexandria, VA 22313-1450 on November 1, 2005.

Robert E. Malm

In re Application of:

GREGORY E. JOHNSTON. ARIE LEVINKRON

Serial Number: 09/059,077

Filing Date: 04/09/98

For: MOBILE SURVEILLANCE SYSTEM

Group Art Unit: 2612

Examiner: LUONG NGUYEN

Telephone: (571) 272-7315

SUBMISSION OF REPLY BRIEF

PURSUANT TO RULE 37 CFR § 41.39 (b)(2)

Commissioner for Patents Box 1450 Alexandria, VA 22313-1450

Dear Sir:

In response to the examiner's communication dated 09/21/05 and pursuant to 37 CFR § 41.39 (b)(2), applicants request that the appeal be maintained and hereby submit in triplicate a reply brief (entitled Supplemental Appeal Brief).

Art Unit: 2612

The Supplemental Appeal Brief addresses each new ground of rejection as set forth in 37 CFR § 41.37 (c)(1)(vii) and follows the other requirements of a brief as set forth in 37 CFR § 41.37 (c). The Supplemental Appeal Brief is NOT accompanied by any amendments, affidavits, or other evidence.

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Rule 37 CFR § 41.39 (a)(1) states that "If the primary examiner determines that the appeal does not comply with the provisions of §§ 41.31 and 41.37 or does not relate to an appealable action, the primary examiner shall make such determination of record. The primary examiner has presumably not made "such determination of record" since no such determination was reported in the 09/21/05 communication.

Moreover, Rule 37 CFR § 41.37 (d) states that "If a brief is filed which does not comply with all the requirements of paragraph (c) of this section, appellant will be notified of the reasons for non-compliance and given a time period within which to file an amended brief." Since applicants were not notified in the 09/21/05 communication of any issues of non-compliance, applicants' appeal brief presumably conforms with the provisions of §§ 41.31 and 41.37 and there is no legal basis for the primary examiner to reopen prosecution of this application.

Prior Rule 37 CFR § 1.193 did not permit an examiner's answer to include a new ground of rejection (§ 1.193 (a)(2)) but specifically allowed the primary examiner to reopen prosecution for the limited purpose of responding to the reply brief (§ 1.193 (b)(1)). In response to the primary examiner's reopening prosecution, appellant was permitted to request reinstatement of the appeal (§ 1.193 (b)(2)(ii)).

The primary examiner is now empowered by Rule 37 CFR § 41.39 (a)(2) to include a new ground of rejection in the examiner's answer but there is nothing in the rule which would allow the primary examiner to abort the appeal process and reopen prosecution, as the 09/21/05 communication suggests.

Applicants respectfully request that the present appeal be maintained pursuant to 37 CFR § 41.39 (b)(2).

Respectfully submitted,

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Robert E. Malm

In re Application of:

GREGORY E. JOHNSTON ARIE LEVINKRON

Serial Number: 09/059,077

Filing Date: 04/09/98

For: MOBILE SURVEILLANCE SYSTEM

Group Art Unit: 2

. 2712

Examiner:

LUONG NGUYEN

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SUPPLEMENTAL APPEAL BRIEF

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REAL PARTY IN INTEREST

The real parties in interest are GREGORY E. JOHNSTON, an individual residing at 1528 Monteval Place, San Jose, California, and ARIE LEVINKRON, an individual residing at 7320 Cirrus Way, West Hills, California.

RELATED APPEALS AND INTERFERENCES

The examiner's earlier rejection of all 25 claims was the subject of Appeal No. 2000-1719.

STATUS OF CLAIMS

Claims 1-25 are pending in the application.

Claims 1-25 were rejected and are being appealed.

STATUS OF AMENDMENTS

No amendments were filed subsequent to final rejection of the claims by the examiner.

SUMMARY OF CLAIMED SUBJECT MATTER

- 1. A mobile pan and tilt camera and display-control apparatus comprising:
- a fully rotatable camera attached to a mount assembly that is mounted to a vehicle for capturing mobile images (specification: page 8, last paragraph, lines 1-2);
- a display-control box having an image display screen and control buttons for controlling said camera and its movement, said display-control box being attached to an adjustable mount in said vehicle within an operator's view and reach (specification: page 8, last paragraph, lines 2-5);

an image capture box for receiving said captured mobile images (specification: page 8, last paragraph, lines 5-7).

- 2. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 wherein full rotation is achieved by mounting said camera to a tilting mechanism mounted on a panning mechanism (specification: page 13, last line, through page 14, line 16; Fig. 3: 20, 22, 30, 32, 33, 35, 36, 38, 39, 40).
- 3. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 wherein said mount assembly incorporates a quick disconnect mechanism (specification: page 17, last paragraph through page 18, first paragraph; Fig. 7: 20, 22, 35, 36, 38, 40, 65, 66, 68, 69, 71).

- 4. A mobile pan and tilt camera and display-control apparatus as claimed in claim 3 further comprising a double locking mechanism on said mount assembly where one mechanism is a security fastener (specification: page 18, first paragraph; Fig. 7: 20, 35, 36, 40, 65, 66, 69).
- 5. A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 further comprising a water seal attached to said tilting mechanism (specification: page 19, lines 9-23; Fig. 8: 20, 84, 85, 87, 88).
- 6. A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 wherein said mount assembly is adapted to engage the roof-rack of a vehicle (specification: page 23, first and second complete paragraphs; Fig. 13: 20, 22, 60, 250, 251, 252; Fig. 14: 22, 63, 67, 68, 270, 272, 274).
- 7. A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 wherein said mount assembly is adapted to engage a THULE[®] brand roof rack system (specification: page 16, last paragraph through page 17, first paragraph; Fig. 6: 20, 22, 34, 35, 36, 38, 40, 52, 60, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72,).
- 8. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 further comprising a ball-plunger for self-locking said mount assembly (specification: page 18, first paragraph; Fig. 7: 20, 35, 36, 40, 65, 66, 69).

- 9. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 further comprising a security fastener as a secondary and operator activated mechanical locking mechanism for said mount assembly (specification: page 18, first paragraph; Fig. 7: 20, 35, 36, 40, 65, 66, 69).
- 10. A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 further comprising a singular support for both said panning mechanism and said tilting mechanism and separate drive gears and slip clutches for both said panning mechanism and said tilting mechanism (specification: page 24, last paragraph through page 26, first paragraph; Fig. 17: 150, 155, 156, 157, 160, 166, 167, 168, 300, 301, 302, 303, 304, 305, 306; Fig. 18: 34, 150, 161, 162, 165, 166, 310, 311, 312, 313, 314, 315, 316, 317).
- 11. A mobile pan and tilt camera and display-control apparatus as claimed in claim 10 wherein each slip clutch comprises:
 - a rotationally free gear;
 - a support housing for gear;
 - a friction pad co-aligned to said gear between said gear and said support housing;
- a wave washer to apply a pressure against said rotationally free gear and said support housing of sufficient force to enable a motor to drive said gear and said support housing to a point where said support housing stops rotating and said rotationally free gear breaks friction of said friction pad while said motor continues to drive without overheating (specification: page 24, last paragraph through page 26, first paragraph; Fig. 17: 150, 155, 156, 157, 160, 166, 167, 168,

300, 301, 302, 303, 304, 305, 306; Fig. 18: 34, 150, 161, 162, 165, 166, 310, 311, 312, 313, 314, 315, 316, 317).

- 12. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 further comprising a camera enclosure with bezel opening that is threaded to accept optical filters and is sealed with an o-ring for moisture blocking (specification: page 13, second paragraph, lines 7-8; Fig. 2: 30, 31, 32; page 19, lines 4-6; Fig. 8: 30, 32, 82, 89).
- 13. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 further comprising a Field of View (FOV) stabilized camera which provides an electronic compensation to overcome mechanical gear backlash and vibration (specification: page 22, first paragraph; Fig. 10: 156, 157, 158, 159, 161, 162, 164, 165; Fig. 11: 20, 100, 150, 155, 156, 170, 171, 173, 174, 175).
- 14. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 wherein said camera may be mounted at any angle with respect to gravity (specification: page 21, second paragraph; Fig. 10: 20, 34, 40, 150, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 175, 176).
- 15. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 further comprising a bimetal heat sink for camera power supply temperature control (specification: page 18, second paragraph through page 19, lines 1-3; Fig. 8: 32, 80, 81, 88, 150).

- 16. A mobile pan and tilt camera and display-control apparatus as claimed in claim 12 wherein said camera enclosure is adapted to act as an additional heat sink (specification: page 18, last three lines; Fig. 8: 32, 81, 88).
- 17. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 wherein said camera enclosure incorporates a one-way moisture passage plug with flexible and sealed passage for wires (specification: page 19, lines 9-23; Fig. 8: 20, 84, 85, 87, 88).
- 18. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 wherein said display-control box has a set of control buttons positioned to be operated with a single hand (specification: page 8, last paragraph; page 23, last three lines; Figs. 15, 16: 21, 26, 121, 134).
- 19. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 wherein said display-control box has a viewing angle adjustment lever positioned to be operated with said single hand (specification: page 12, second paragraph; Fig. 1: 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 118; page 23, fourth paragraph through page 24, first paragraph; Figs. 15, 16: 21, 25, 26, 27, 121, 130, 131, 132, 133, 134, 135, 137, 138, 140).
- 20. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 further comprising an optically clear or tinted sphere enclosing said camera (specification: page

- 22, second paragraph through page 23, first paragraph; Fig. 12: 20, 22, 32, 33, 150, 260).
- 21. A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 wherein said mount assembly mates to a YAKIMA^R brand roof rack system (specification: page 23, third paragraph; Fig. 14: 22, 63, 67, 68, 270, 272, 274,).
- 22. A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 wherein said mount assembly includes an adapter plate to mate to a light bar used on emergency and patrol guard vehicles (specification: page 23, second paragraph; Fig. 13: 22, 60, 250, 251, 252).
- 23. A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 wherein said mount assembly is adaptable to a railroad locomotive attachment (specification: original claim 23).
- 24. A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 wherein said mount assembly includes an adapter plate for ship-board attachment (specification: original claim 24).
- 25. A process for viewing a scene with mobile pan or tilt camera of claim 1 comprising the steps of:

mounting said camera to a vehicle for capturing mobile images;

displaying said captured mobile images on an image display screen;

controlling camera position from within said vehicle;

capturing said captured mobile images in an image capture box for storage and transmission of said captured mobile images; and

transmitting said captured mobile images by radio frequency transmission to a data storage server for further processing; and

providing said captured mobile images on internet server for official or consumer access (specification: page 9, first paragraph).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

- I. WHETHER CLAIMS 1-2, 5-6, 10, 14, 18-19, 22, AND 24 ARE UNPATENTABLE UNDER 35 U.S.C. § 103(a) IN VIEW OF MARUYAMA et al. AND KLAPPER et al.
- II. WHETHER CLAIMS 3-4 AND 8-9 ARE UNPATENTABLE UNDER 35 U.S.C. § 103(a) IN VIEW OF MARUYAMA et al., KLAPPER et al., AND PADDOCK et al.
- III. WHETHER CLAIMS 7 AND 21 ARE UNPATENTABLE UNDER 35 U.S.C. § 103(a) IN VIEW OF MARUYAMA et al., KLAPPER et al., AND SCLATER.
- IV. WHETHER CLAIM 11 IS UNPATENTABLE UNDER 35 U.S.C. § 103(a) IN VIEW OF MARUYAMA et al., KLAPPER et al., AND KURIAN.
- V. WHETHER CLAIMS 12 AND 16 ARE UNPATENTABLE UNDER 35 U.S.C. § 103(a) IN VIEW OF MARUYAMA et al., KLAPPER et al., SERGEANT et al. AND KENNEDY et al.
- VI. WHETHER CLAIM 13 IS UNPATENTABLE UNDER 35 U.S.C. § 103(a) IN VIEW OF MARUYAMA et al., KLAPPER et al., AND McMAHON.
- VII. WHETHER CLAIM 15 IS UNPATENTABLE UNDER 35 U.S.C. § 103(a) IN VIEW OF MARUYAMA et al., KLAPPER et al., AND BAUMEISTER.
- VIII. WHETHER CLAIM 17 IS UNPATENTABLE UNDER 35 U.S.C. § 103(a) IN VIEW OF MARUYAMA et al., KLAPPER et al., AND BALKWILL et al.
- IX. WHETHER CLAIM 20 IS UNPATENTABLE UNDER 35 U.S.C. § 103(a) IN VIEW OF MARUYAMA et al., KLAPPER et al., AND TOVI.
- X. WHETHER CLAIM 23 IS UNPATENTABLE UNDER 35 U.S.C. § 103(a) IN VIEW OF

MARUYAMA et al., KLAPPER et al., AND YANG.

XI. WHETHER CLAIM 25 IS UNPATENTABLE UNDER 35 U.S.C. § 103(a) IN VIEW OF MARUYAMA et al., KLAPPER et al., AND KUJIRADA.

GROUPING OF CLAIMS

GROUND I:

Claims 1, 5, 6, 10, 18, 19, 22, and 24 stand or fall separately.

Claims 2 and 14 stand or fall with claim 1.

GROUND II:

Claims 3, 4, 8, and 9 stand or fall separately.

GROUND III:

Claims 7 and 21 stand or fall separately.

GROUND IV

Claim 11 stands or falls separately.

GROUND V

Claims 12 and 16 stand or fall separately.

GROUNDS VI-XI:

Each ground concerns only one claim, each of which stands or falls

separately..

INTRODUCTION

Applicants' invention is a mobile surveillance system comprising (1) a pan-and-tilt video camera attached to a mount assembly for capturing mobile images, (2) a display-control box having an image display screen and control buttons for controlling the camera and its movement, and (3) an image capture box for receiving the captured images.

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It seems appropriate at this point to review the history of the prosecution of this patent application. The application was filed on April 9, 1998 and the first office action by was mailed on October 23, 1998. There were 16 references cited, and all claims were rejected based on one or more of the cited references. Applicants provided detailed arguments in the response to the office action for each of the rejected claims as to why none of the references, either separately or in combination, disclosed the limitations of the claim.

The second office action was mailed on April 14, 1999. The examiner stated that applicants' arguments in response to the first office action were moot in view of new grounds of rejection brought about "because claim 1 in the first action was so unclear, the examiner did not realize an important limitation was neglected." The "new grounds of rejection" were the result of the examiner presumably doing another search and adding two additional references, not included in the original 16, which the examiner believed would remedy the problem of the "neglected limitation" of claim 1. Once again, all of the claims were rejected. And once again, applicants provided detailed arguments in the response to the office action for each of the rejected claims as to why none of the references, either separately or in combination, disclose the

limitations of the claims.

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The third and final office action was prepared by a new examiner who continued the tradition of rejecting all of the claims.

Since the examiners could find nothing patentable in applicants' invention and believing very strongly that there was nothing in the prior art discovered by the examiners which disclosed applicants' invention, applicants appealed to the Board.

The Conclusion of the Decision on Appeal was brief: "The decision of the examiner rejecting claims 1 through 25 under 35 U.S.C. § 103 is reversed." Applicants then received an office action dated July 4, 2004 once again rejecting all 25 claims. The introductory sentence of the office action stated:

"In view of the decision of the Board of Patent Appeals and Interferences rendered on 12/10/2003, PROSECUTION IS HEREBY REOPENED. A non-final Office Action set forth below [sic]."

And the text of the Office Action then continued for 13 pages again rejecting all of the claims based on a "newly-discovered" 1983 reference.

Applicants were surprised by the reopening of prosecution in view of the passage from the Manual of Patent Examining Procedure (MPEP) § 1214.07, "Reopening of Prosecution", which cited 37 CFR 1.198:

"Cases which have been decided by the Board of Patent Appeals and Interferences will not be reopened or reconsidered by the primary examiner except under the provisions of § 1.114 or § 1.196 without the written authority of the Commissioner, and then only for the consideration of matters not already adjudicated, sufficient cause being shown."

Section 1.114 has to do with the filing by the applicants of a request for continued examination which applicants did not do. Section 1.196 has to do with aspects of the Board's decision (e.g. new grounds of rejection, specific statement that a claim may be allowed in amended form, remand), none of which arose in the present situation.

What, then, would constitute "matters not already adjudicated" that would allow the reopening of prosecution and was sufficient cause shown?

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A passage from the Manual of Patent Examining Procedure (§ 1214.04, "Examiner Reversed") states that:

"If the examiner has specific knowledge of the existence of a particular reference or references which indicate nonpatentability of any of the appealed claims as to which the examiner was reversed, he or she should submit the matter to the Technology Center Director for authorization to reopen prosecution under 37 CFR 1.198 for the purpose of entering the new rejection."

It is important at this point to understand the meaning of "prosecution" insofar as the patenting process is concerned. The term "prosecution" encompasses the entire patenting process. For example, "prosecution history" (according to Black's Law Dictionary) means the complete record of proceedings in the Patent and Trademark Office from the initial application to the issued patent.

"Prosecution" entails "examination" which requires an examiner to "make a thorough investigation of the available prior art relating to the subject matter of the claimed invention." 37 CFR 1.104(a)(1). Thus, a reopened prosecution means a reexamination which includes a new search. Thus, when 37 CFR 1.198 states that cases may be reopened only with sufficient cause

being shown, it does not mean that the examiner may informally reopen prosecution to perform a new search and if the results of the new search provide sufficient cause, request the Technology Center Director to formally reopen prosecution for the purpose of entering the new rejection.

Once a new search has been initiated, it is certain that an examiner will be able to find a reference on the basis of which he or she can argue the unpatentability of an invention. An example is the 04/07/04 Office Action where the examiner continued to argue incorrectly the unpatentability of all of applicants' claims after three searches and for three sets of references.

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The key reference which provided the basis for rejecting all of applicants' claims in the 04/07/04 Office Action was Clendenin et al., U.S. Patent 4,386,848 issued on June 7, 1983, some 21 years ago. If the examiner had "specific knowledge of the existence" of this reference, it would seem unlikely that this knowledge was recently acquired, since the patent is so old. And if the examiner in some way became aware of it at an earlier time, why was it not brought forth during the original prosecution of applicants' application?

Applicants' responded to the examiner's 04/07/04 Office Action, based on Clendenin et al., with detailed arguments as to why the "newly-discovered" Clendenin et al. reference, either by itself or in combination with other previously-discovered references, did not disclose applicants' invention.

The examiner responded with a 23-page Office Action dated 01/27/05 which stated that "Applicant's arguments . . . have been fully considered but they are not persuasive" except, apparently for claims 12, 13, and16 which the examiner conceded would be patentable if rewritten in independent form.

Applicants then appealed to the Board of Patent Appeals and Interferences and filed an

appeal brief based on the same arguments which the examiner had previously "fully considered" and found "not persuasive". However, in rereading applicants' arguments in the Appeal Brief, the examiner appears to have had a change of heart and concluded that Clendenin et al. was not the magic bullet that he thought it was. The introductory sentence of his 09/21/05 Office Action stated:

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"In view of the Appeal Brief filed on 7/01/2005, PROSECUTION IS HEREBY REOPENED. A non-final Office Action set forth below [sic]."

And the text of the Office Action then continued for 12 pages again rejecting all 25 claims based on a presumably "newly-discovered" Japanese patent to Maruyama et al.

The key reference which now provides the basis for rejecting all of applicants' claims is Maruyama et al., a Japanese patent. If the examiner had "specific knowledge of the existence" of this reference, it would seem unlikely that this knowledge was recently acquired, since an English translation was apparently available in the USPTO in July 1999. And if the examiner in some way became aware of it at an earlier time, the same question posed earlier arises—why was it not brought forth during the original prosecution of applicants' application?

Is Maruyama et al. the reference that will provide the basis for denying patent protection to applicants' invention? Again, the answer is no. Maruyama et al. (and all of the other cited references) fail to disclose at least two of the limitations of claim 1, applicants' only independent claim. And there is a lack of motivation for a person skilled in the art to combine the inventions of Maruyama et al. and a second reference which the examiner proposes as a realization of a third limitation of claim 1.

ARGUMENT

I. WHETHER CLAIMS 1-2, 5-6, 10, 14, 18-19, 22, AND 24 ARE UNPATENTABLE UNDER 35 U.S.C. § 103(a) IN VIEW OF MARUYAMA et al. AND KLAPPER et al.

CLAIM 1

Claim 1 reads as follows:

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- 1. A mobile pan and tilt camera and display-control apparatus comprising:
- [3] a fully rotatable camera attached to a mount assembly that is mounted to a vehicle for capturing mobile images;
- [1] a display-control box having an image display screen and control buttons for controlling said camera and its movement, [2] said display-control box being attached to an adjustable mount in said vehicle within an operator's view and reach;

an image capture box for receiving said captured mobile images.

Neither of the two references disclose limitation [1] and limitation [2] shown in boldface above.

Limitation [1]

Maruyama et al. discloses (Figs. 1-4) a display-control box but the display-control box has no provision for controlling the movement of the camera. The examiner agrees (see 09/21/05

Office Action, p. 3).

Klapper et al. discloses a control box having no display (Fig. 1, 566; col. 6, lines 7-8). The examiner seems to have overlooked this fact (see 09/21/05 Office Action, p. 3 and Klapper et al., col. 4, lines 5-51, which points out in some detail that the display can be in a variety of places other than in remote control unit 566.

Neither reference discloses "a display-control box having an image display screen and control buttons for controlling said camera and its movement."

Limitation [2]

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Neither Maruyama et al. nor Klapper et al. disclose a display-control box that includes both a display and controls for controlling the movement of the camera. Nor do either of the references disclose such a display-control box "attached to an adjustable mount in said vehicle within an operator's view and reach."

The examiner cites Klapper et al.'s remote control unit 566 (Fig. 1; col. 4, lines 44-51) as being a disclosure of limitation [2] (09/21/05 Office Action, p.3), but nothing is disclosed as to an integrated display-control box and nothing is disclosed even as to Klapper et al.'s remote control unit being attached to an adjustable mount or as to the remote control unit being within an operator's view and reach.

To establish *prima facie* obviousness, one must have a disclosure of each of the claim limitations by the prior art, motivation on the part of a person skilled in the art to combine the prior-art references, and a reasonable probability of success in accomplishing the combination:

"To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references

themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)." MPEP § 2142.

Since neither Maruyama et al. and Klapper et al. disclose claim limitations [1] and [2], there is no point in discussing motivation and probability of success. The examiner has not established *prima facie* obviousness insofar as limitations [1] and [2] are concerned.

Limitation [3]

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Limitation [3] specifies that the pan and tilt camera referred to in the preamble is a fully-rotatable camera attached to a mount assembly that is mounted to a vehicle. The examiner argues that the combination of Maruyama et al.'s handheld camera and Klapper et al.'s gimbaled pointing system (which is shown mounted on a public-safety vehicle and presumably powered by the vehicle's battery) meets the requirements of limitation [3]. 09/21/05 Office Action, p. 3.

Although it may be possible that the functions specified by limitation [3] can be performed by Maruyama et al.'s camera installed in Klapper et al.'s pointing system, there is no motivation for a person skilled in the art to attempt such a combination.

Maruyama et al.'s camera system is designed for easy use by household users (paragraph [0012]) in a variety of ways: namely, camera attached to VTR element (the control, display, and record element of Maruyama et al.'s invention) (Fig. 3), camera mounted on a rod and held high above crowd (Fig. 20), camera mounted on electrically-powered pole head in conference room

(no indication of pan and tilt capability) (Fig. 21), camera positioned under water (Fig. 22), camera mounted on an individual's head (Fig. 23), camera mounted on the side of a car (Fig. 24), camera positioned to face spot frequented by small animals (paragraph [0051]), camera handheld to take extremely high angle shots or low angle shots without individual having to assume uncomfortable posture (paragraph [0052]), camera mounted on tripod (mounting screw shown in figure)(Fig. 54), camera mounted to tree branch by clip support (Fig. 57), camera mounted underwater on ultra-small submarine (Fig. 58), camera mounted to exterior car surface (Fig. 59), and camera mounted to individual's arm by an armband (Fig. 60).

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It would appear that Maruyama et al. have invented an extremely versatile camera system which can be used in a variety of ways by an individual without burdening the individual with large and heavy equipment.

The examiner argues that a person skilled in the art would be motivated to add Klapper et al.'s backpack-sized gimbaled pointing system (requiring an automobile battery for power) to Maruyama et al.'s diminutive camera system in order to achieve a larger camera field-of-view. But adding a pointing device to a camera does not affect the field-of-view of a camera. It simply enables Maruyama et al.'s camera system to do what it does in a more mechanized fashion and at a significant cost in size, weight, complexity, and operating flexibility.

There does not appear to be any rational basis for incorporating Klapper et al.'s pointing device in Maruyama et al.'s camera system and certainly there is nothing in either of the references that might suggest the desirability of such a combination. The examiner has not established motivation for combining the inventions of Maruyama et al. and Klapper et al. for the

purpose of realizing limitation [3] and consequently, has not established the *prima facie* obviousness of limitation [3].

Conclusions

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Neither Maruyama et al. nor Klapper et al. discloses limitations [1] and [2] and based on this fact alone, claim 1 is not obvious in view of Maruyama et al. and Klapper et al.

With respect to limitation [3], Maruyama et al.'s camera mounted on Klapper et al.' pointing system would result in a fully-rotatable camera. However, there is no rationale basis for making such a combination, and claim 1 is also not obvious in view of Maruyama et al. and Klapper et al. for lack of motivation for combining the two inventions.

CLAIM 5

Claim 5 reads as follows:

5. A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 further comprising a water seal attached to said tilting mechanism.

The examiner argues that Klapper et al. discloses a water seal attached to said tilting mechanism and cites the water-resistant case disclosed at col. 13, line 65 - col. 14, line 5. 01/27/05 Office Action, p. 15; 09/21/05 Office Action, p. 3.

Klapper et al. does not disclose a water seal attached to the tilting mechanism (see Fig. 3). The passage cited by the examiner (col. 13, lines 65-67) states that "[t]he camera 1104 again preferably uses uncooled detectors, high-speed, precision reflective optics, and signal processing

electronics housed in a compact, water-resistant case." A "water-resistant case" is not a "water seal attached to the tilting mechanism."

The examiner's response to applicants' arguments was as follows:

"In response, the examiner considers that Klapper et al. does disclose this feature. Clapper et al. discloses camera 1104 uses a water-resistant case, and camera 1104 is mounted by a positioning mechanism 1105 providing tilting and panning mechanisms (Figure 16, Column 13, Line 65 - Column 14, Line 5). 01/27/05 Office Action, p. 6.

The examiner seems to be saying that a camera housed in a water-resistant case 1 which is mounted to pointing mechanism 500 (see Fig. 2) implies that there is a water seal where the camera and case attaches to the pointing mechanism. However, no such water seal is shown in the drawing (see Fig. 3), and no such water seal is described (see col. 4, line 52 - col. 5, line 67).

Neither of the references disclose the water seal of claim 5, and consequently, the examiner has not established the *prima facie* obviousness of claim 5.

15 **CLAIM 6**

Claim 6 reads as follows:

6. A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 wherein said mount assembly is adapted to engage the roof-rack of a vehicle.

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Applicants in claim 6 claim "a mobile pan and tilt camera and display-control apparatus as claimed in claim 2 wherein said mount assembly is adapted to engage the roof-rack of a vehicle."

The question that must be answered before considering the prior art is the meaning of the term "roof-rack of a vehicle".

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"A fundamental principle contained in 35 U.S.C. 112, second paragraph is that applicants are their own lexicographers. They can define in the claims what they regard as their invention essentially in whatever terms they choose so long as the terms are not used in ways that are contrary to accepted meanings in the art." MPEP § 2173.01.

The dictionary definition of "rack" is "a framework on which articles or materials are arranged or deposited." *The Random House College Dictionary, Revised Edition*, Random House, Inc., New York, N.Y. (1988). By standard grammatical construction, a "roof-rack" is a rack located on a roof. A "roof-rack of a vehicle" is a rack that attaches to the roof of a vehicle and on which can be placed a variety of different articles or materials. Well-known engineering principles and cost efficiency dictate the structure of a roof rack to be based on two spaced-apart members that can be fastened to a vehicle roof and to which different articles (such as luggage carriers, bicycles, etc.) can be attached. Such vehicle roof racks are a standard commodity exemplified by Thule^R-brand and Yakima^R-brand roof racks. Specification, pp. 16-17, 23.

The claim language "said mount assembly is **adapted to engage** the roof-rack of a vehicle" suggests that the mount assembly is designed to mount on a more-or-less general-purpose roof-rack without change to the roof-rack. The expression "adapted to" is typically used in claims to express the idea that the design of an invention is adjusted to match an existing design of some other object. *See In re Venezia*, 189 USPO 149 (CCPA 1976).

The examiner cites Klapper et al. as disclosing applicants' "mount assembly . . . adapted to engage a roof-rack of a vehicle". 01/27/05 Office Action, p. 15; 09/21/05 Office Action, p. 3. But that is not what Klapper et al. discloses. Klapper et al. discloses custom "mounting hardware

1012" that can secure a camera to the roof of a vehicle—not to the roof-rack of the vehicle. Klapper et al., col. 3, lines 48-53; col. 4, lines 1-4. Klapper et al.'s "mounting hardware 1012" consists of a single member that is incapable of serving as a "roof-rack"—"a framework on which articles or materials are arranged or deposited." Klapper et al.'s "mounting hardware 1012" is custom-designed to mate with Klapper et al.'s "pointing mechanism 500". Klapper et al.'s "pointing mechanism 500" is not adapted to engage the traditional vehicle roof-rack.

Klapper et al. does not disclose a camera having a mount assembly that is adapted to engage the roof-rack of a vehicle.

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

Since none of the cited references disclose a "mount assembly adapted to engage a roof-rack of a vehicle", *prima facie* obviousness has not been established for claim 6.

CLAIM 10

Claim 10 reads as follows:

10. [1] A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 further comprising a singular support for both said panning mechanism and said tilting mechanism and [2] separate drive gears and slip clutches for both said panning mechanism and said tilting mechanism.

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None of the references cited by the examiner disclose the limitations shown in bold face.

Limitation [1]

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The examiner cites Klapper et al. as having disclosed applicants' claim-10 "singular support for both pan and tilt mechanisms" and identifies the "singular support" of the tilt mechanism as being tilt drive gear 522 and the "singular support" of the panning mechanism as being pan drive motor gear 544, both shown in Fig. 3 and described at col. 5, lines 12-15 and lines 45-46. 01/27/05 Office Action, p. 15; 09/21/05 Office Action, p. 4.

The examiner incorrectly attributes support of Klapper et al.'s tilting mechanism to drive gear 522 and support of the panning mechanism to pan drive motor gear 544. In fact, Klapper et al.'s tilting mechanism consists of first and second trunnions 512 and 514 and first and second tilt bearings 516 and 518. First and second trunnions 512 and 514 are attached to the night vision camera 1 and are rotatably attached to panning mechanism 510 by first and second tilt bearings 516 and 518. Klapper et al., col. 4, line 52 - col. 5, line 5. The tilt gimbel 502 supports the tilting mechanism and the camera by providing support for the first and second tilt bearings 516 and 518. Since the tilt gimbel 502 supports the tilting mechanism at two separated and distinct points, it does not provide singular support. The examiner's theory that the tilting mechanism is singularly supported by tilt drive gear 522 is wrong because there is nothing for the tilt drive gear 522 to push against in providing such support. The tilt drive gear 522 is coupled to the tilt gimbel by the tilt motor gear 524 which only supplies a torque to the tilt drive gear 522—not a support force.

With respect to the support of the panning mechanism in the Klapper et al. invention, the panning mechanism consists of the aforementioned tilt gimbal housing 510 and pan bearing 534.

The pan housing 538 provides singular support to the panning mechanism through pan bearing 534. The examiner is incorrect in asserting that support of the panning mechanism is provided by pan drive motor gear 544. Pan drive motor gear 544 only applies a torque to pan gear 546 and provides no support for gimbal housing 510.

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Limitation [2]

The examiner asserts that a slip ring and brush is the same as a slip clutch and since Klapper et al. discloses a slip ring and brush for both the panning mechanism and the tilting mechanism, Klapper et al. discloses a slip clutch for both mechanisms. 01/27/05 Office Action, pp. 15-16; 09/21/05 Office Action, p. 4.

There are two problems with the examiner's assertion. A slip ring and brush is NOT the same as a slip clutch, and even if they were the same, Klapper et al. discloses a slip ring and brush assembly 536 for only the panning mechanism (col. 5, lines 31-37).

A slip ring and brush is "a conductive rotating ring which, in combination with a stationary brush, provides a continuous electrical connection between rotating and stationary conductors." McGraw-Hill Dictionary of Scientific and Technical Terms, Fourth Edition, Sybil P. Parker, Editor in Chief, McGraw-Hill, Inc., New York, N.Y. (1989), see "slip ring".

A clutch is "a machine element for the connection and disconnection of shafts in equipment drives, especially when running." A slip clutch is a clutch "designed to slip when too much power is applied to it." McGraw-Hill Dictionary of Scientific and Technical Terms, Fourth Edition, Sybil P. Parker, Editor in Chief, McGraw-Hill, Inc., New York, N.Y. (1989), see "clutch" and "slip friction clutch".

A "slip ring and brush" is NOT a "slip clutch" and the examiner errs when he assets that they are. Klapper et al. does not disclose the use of any "slip clutches".

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

The prior art cited by the examiner does not disclose the limitations of claim 10. Since the limitations of claim 10 are not disclosed by the prior art, there is no way that a person skilled in the art would be motivated to incorporate such limitations in the Maruyama et al. invention.

The examiner has not established the prima facie obviousness of claim 10.

15 **CLAIM 18**

Claim 18 reads as follows:

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18. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 wherein said display-control box has a set of control buttons positioned to be operated with a single hand.

Claim 18 states that a set of the claim-1 "control buttons for controlling said camera and its movement" are positioned to be operated with a single hand. The examiner argues that Maruyama et al. "discloses said display and control system have a set of control buttons positioned to be operated with a single hand" and draws this conclusion from Fig. 1. Fig. 1,

however, shows Maruyama et al.'s display-control box with control buttons positioned for operation by the fingers of both hands while the box is being held by both hands (see Figs. 8, 25, 26, and 63). This "fingers-of-both-hands" operating procedure is repeatedly emphasized by Maruyama et al.

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"Further, the configuration is such that even when the shooter is holding the lower portion of the left and right sides of the casing of the VTR element with two hands, all means of operating controls are positioned within the reach of the fingers of the two hands." Maruyama et al., paragraph [0015].

"[As shown in Figs. 1 and 2] Operation buttons, operation dials, and the like are positioned so as to be concentrated in about the lower half of the front surface of casing 4, on the upper right side of the front surface, and near the front at the top of the right lateral surface. These control operation elements (system operation control elements for shooting, playback, TV reception, and the like) are all positioned to be within reach of the fingers without having to change handholds when holding the lower portion of the left and right lateral surface of casing 4, as described further below." See next quotation. Maruyama et al., paragraph [0026].

"It is possible for both hands to hold the lower portion of the right and left lateral surfaces of casing 4 of VTR element 1 with VTR element 1 and camera element 2 in an integrally joined state." Maruyama et al., paragraph [0032].

Although mention is made (Maruyama et al., paragraph [0037]) and figures shown (Figs. 57, 58, and 65) of a user holding the display-control box with one hand, there is nothing in Maruyama et al. to suggest that the control buttons are operable with one hand as claim 18 specifies.

Klapper et al. is of no assistance in establishing the *prima facie* obviousness of claim 18 since Klapper et al. says nothing about the mounting of the Klapper et al. remote control unit 566 or the positioning of control buttons for one-handed operation. Klapper et al., col. 6, lines 7-23.

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

The prior art cited by the examiner does not disclose the limitations of claim 18. Since the limitations of claim 18 are not disclosed by the prior art, there is no way that a person skilled in the art would be motivated to incorporate such limitations in the Maruyama et al. invention.

The examiner has not established the *prima facie* obviousness of claim 18.

20 **CLAIM 19**

Claim 19 reads as follows:

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19. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 wherein said display-control box has a viewing angle adjustment lever positioned to be operated with said single hand.

Klapper et al. does not disclose a display-control box having a viewing angle adjustment lever positioned to be operated with a single hand as specified by claim 19.

The examiner cited Klapper et al. (Fig. 1; joystick 568, col. 4, lines 44-51) in rejecting claim 19. 09/21/05 Office Action, p. 4.

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Klapper et al.'s joystick 568 controls the pointing direction of pointing mechanism 500 and is not analogous to the "viewing angle" of claim 19. The "viewing angle" referred to in claim 19 is that of the operator in viewing the display presented on the display-control box. Specification, p. 12, second paragraph.

Claim 1 contains the clause "said display-control box being attached to an adjustable mount in said vehicle within an operator's view and reach." Claim 19 further limits this clause by specifying that "said display-control box has a viewing angle adjustment lever positioned to be operated with said single hand."

Klapper et al. does not disclose a display-control box having a viewing angle adjustment lever positioned to be operated with a single hand as specified by claim 19.

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

The prior art cited by the examiner does not disclose the limitations of claim 19. Since the limitations of claim 19 are not disclosed by the prior art, there is no way that a person skilled in the art would be motivated to incorporate such limitations in the Maruyama et al. invention.

The examiner has not established the *prima facie* obviousness of claim 19.

CLAIM 22

Claim 22 reads as follows:

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22. A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 wherein said mount assembly includes an adapter plate to mate to a light bar used on emergency and patrol guard vehicles.

The examiner cites Klapper et al. as disclosing applicants' mount assembly as including an adapter plate to mate to a light bar used on emergency and patrol guard vehicles as specified in claim 22. 01/27/05 Office Action, p. 16; 09/21/05 Office Action, p. 4.

Klapper et al. does not disclose a camera having a mounting assembly which includes an adapter plate to mate to light bars used on emergency and patrol guard vehicles. Klapper et al. discloses custom mounting hardware 1012 that can secure a camera to the roof of a vehicle—not to the light bar of the vehicle. Col. 3, lines 48-50; Col. 4, lines 1-4. The "custom" nature of the mounting hardware is indicated by the center support 1014 which has mounting holes that match the pointing mechanism 500. Klapper et al.'s night vision camera 1 and pointing mechanism 500 are not adapted for mounting to light bars on emergency vehicles. Fig. 1 does not show a light bar on the automobile and Fig. 2 shows mounting hardware for mounting Klapper et al.'s night vision system to a car's roof, not to a light bar. Col. 1, lines 25-27, does not say anything about mounting Klapper et al.'s night vision system to a light bar.

The examiner responded to the above argument by stating that "Applicants recited the

limitation 'a mount assembly includes an adapter plate to mate to a light bar used on emergency and patrol guard vehicles'. The claim only recited 'a light bar'. Therefore, the examiner considers that the mounting hardware 1024 as shown in Figure 2 reads on claim 22." 01/27/05 Office Action, p. 7.

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The examiner is mistaken. The claim does not just recite "a light bar". Even if the claim had not included the words "used on emergency and patrol guard vehicles", the conclusion would be the same. Klapper et al. discloses custom mounting hardware 1012 that can secure a camera to the roof of a vehicle—not to the light bar of the vehicle." The custom mounting hardware 1012 disclosed by Klapper et al. (see Fig. 2) is not "an adapter plate to mate to a light bar." Klapper et al. does not disclose the limitations of claim 22.

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

"To establish a *prima facie* case of obviousness, . . . there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)." MPEP § 2142.

The prior art cited by the examiner does not disclose the limitations of claim 22. Since the limitations of claim 22 are not disclosed by the prior art, there is no way that a person skilled in the art would be motivated to incorporate such limitations in the Marayama et al. invention.

The examiner has not established the *prima facie* obviousness of claim 22.

CLAIM 24

Claim 24 reads as follows:

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24. A mobile pan and tilt camera and display-control apparatus as claimed in claim 2

wherein said mount assembly includes an adapter plate for ship-board attachment.

Klapper et al. does not disclose a mount assembly which includes an adapter plate for ship-board attachment. Fig. 15 which was cited by the examiner as such a disclosure (01/27/05 Office Action, p. 16; 09/21/05 Office Action, p. 5) does not show an adapter plate nor does the discussion of Fig. 15 (col. 13, lines 41-52) disclose an adapter plate.

The examiner responded to this argument by arguing that "Klapper et al. discloses a night vision camera 1101 mounted below the bridge of a marine vessel 1103. Therefore, this reads on 'a mount assembly which includes an adapter plate for ship-board attachment'." 01/27/05 Office Action, p. 8.

A disclosure that "a night vision camera 1101 is mounted below the bridge of a marine vessel 1103" is not a disclosure of "a mount assembly which includes an adapter plate for ship-board attachment."

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

"To establish a prima facie case of obviousness, . . . there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)." MPEP § 2142.

The prior art cited by the examiner does not disclose the limitations of claim 24. Since the limitations of claim 24 are not disclosed by the prior art, there is no way that a person skilled in the art would be motivated to incorporate such limitations in the Maruyama et al. invention.

The examiner has not established the *prima facie* obviousness of claim 24.

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II. WHETHER CLAIMS 3-4 AND 8-9 ARE UNPATENTABLE UNDER 35 U.S.C. § 103(a) IN VIEW OF MARUYAMA et al., KLAPPER et al., AND PADDOCK et al.

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CLAIM 3

Claim 3 reads as follows:

3. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1
wherein said mount assembly incorporates a quick disconnect mechanism.

The examiner asserts that Paddock et al. discloses applicants' quick disconnect mechanism which is not disclosed by the other references cited by the examiner. 01/27/05

Office Action, p. 16; 09/21/05 Office Action, p. 5.

Paddock et al. does not disclose a mount assembly which incorporates a quick disconnect mechanism which allows the mount assembly to be quickly disconnected from the vehicle to which it is attached (*see* mounting assembly 22 in applicants' Fig. 2). The mount assembly referred to in claim 3 corresponds to Paddock et al.'s camera support system which includes support apparatus 10 (which attaches to an operator) and camera support 20. Paddock et al.'s "operator" corresponds to applicants' "vehicle". Paddock et al. does not disclose a quick disconnect mechanism which allows the support apparatus 10 to be quickly disconnected from the operator.

The examiner cites a quick release mechanism which quickly disconnects the camera from a mount assembly (01/27/05 Office Action, p. 16), but this is not the quick disconnect

mechanism which quickly disconnects the mount assembly from the vehicle as specified in claim
3.

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

The prior art cited by the examiner does not disclose the limitations of claim 3. Since the limitations of claim 3 are not disclosed by the prior art, there is no way that a person skilled in the art would be motivated to incorporate such limitations in the Maruyama et al. invention.

The examiner has not established the *prima facie* obviousness of claim 3.

CLAIM 4

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Claim 4 reads as follows:

4. A mobile pan and tilt camera and display-control apparatus as claimed in claim 3 further comprising a double locking mechanism on said mount assembly where one mechanism is a security fastener.

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Paddock et al. does not disclose a quick disconnect feature for the mount assembly (see discussion under the claim-3 heading), let alone a double locking feature for the quick disconnect feature. Paddock et al. does disclose a quick disconnect feature associated with Paddock et al.'s camera, but even if this quick disconnect feature qualified as a disclosure of the quick disconnect feature specified in claim 3, it does not disclose the double locking mechanism of claim 4.

The examiner argues that the two pins 76 and locking screw 77 (Paddock et al., col. 7, lines 26-45) constitute a double locking mechanism. 01/27/05 Office Action, p. 17; 09/21/05 Office Action, p. 5. However, Paddock et al. states:

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"The quick release mechanism, when it is open, allows the mounting plate to be mounted to the adjustable platform. When the locking screw is loosened, the quick release mechanism slidably secures the mounting plate to the adjustable platform. When the locking screw is tightened, the quick release mechanism secures the mounting plate to the adjustable platform." Paddock et al., col. 3, lines 60-67

Note that when the locking screw is loosened, the quick release mechanism <u>slidably</u> secures the mounting plate to the adjustable platform. The mounting plate is not locked to the adjustable platform if it is <u>slidably</u> secured. Thus, the locking screw is the only means provided for locking the mounting plate to the platform.

Paddock et al. does not disclose a double-locking quick release mechanism.

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

The prior art cited by the examiner does not disclose the limitations of claim 4. Since the limitations of claim 4 are not disclosed by the prior art, there is no way that a person skilled in the art would be motivated to incorporate such limitations in the Maruyama et al. invention.

The examiner has not established the *prima facie* obviousness of claim 4.

CLAIM 8

Claim 8 reads as follows:

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8. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 further comprising a ball-plunger for self-locking said mount assembly

The examiner cites Paddock et al. (col. 7, lines 27-30) as disclosing applicants' "ball-plunger for self-locking said mount assembly." 01/27/05 Office Action, p. 17; 09/21/05 Office Action, pp. 5-6. However, Paddock et al. states:

"The ball-plunger 80 of the screw 79 engages one of the notches 81, . . . , of the cam lever 73 when the cam lever 73 is in its closed position . . . in order to provide a stop therefor. When the cam lever 73 is in its open position . . . the ball-plunger 80 of the screw 79 engages the other notch 81, . . . , of the cam lever 73 in order to provide a stop therefor." Paddock et al., col. 7, lines 37-45.

Providing a "stop" is not the same as performing a "self-locking" function.

The examiner responded to the above argument by stating that "Paddock et al. discloses ball-plunger for self-locking said mount assembly." 01/27/05 Office Action, p. 9. He made no attempt to counter applicants' argument that providing a "stop" is NOT the same as performing a "self-locking" function.

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165

USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

The prior art cited by the examiner does not disclose the limitations of claim 8. Since the limitations of claim 8 are not disclosed by the prior art, there is no way that a person skilled in the art would be motivated to incorporate such limitations in the Maruyama et al. invention.

The examiner has not established the *prima facie* obviousness of claim 8.

CLAIM 9

Claim 9 reads as follows:

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9. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 further comprising a security fastener as a secondary and operator activated mechanical locking mechanism for said mount assembly.

The examiner relies on Paddock et al. as having disclosed applicants' "security fastener as a secondary and operator activated mechanical locking mechanism for said mount assembly". 01/27/05 Office Action, p. 17; 09/21/05 Office Action, p. 6.

Paddock et al. does not disclose a mount assembly which incorporates a secondary and operator activated mechanical locking mechanism which guards against the unauthorized removal of the camera and mount assembly from a vehicle. The mount assembly referred to in claim 1 corresponds to Paddock et al.'s camera support system which includes support apparatus 10 (which attaches to an operator) and camera support 20. Paddock et al.'s "operator" corresponds to applicants' "vehicle". Paddock et al. does not disclose any "secondary and

operator activated mechanical locking mechanism" which prevents the unauthorized removal of the support apparatus 10 from the operator.

Even though claim 9 is concerned with a locking mechanism for said mount assembly, the examiner seems to ignore "for said mount assembly" and focuses on locking mechanisms for Paddock et al.'s camera. The examiner identifies two pins 76 and locking screw 77 in a quick release mechanism associated with Paddock et al.'s camera (col. 7, lines 26-45) as being a disclosure of applicants' claim-9 limitation. 01/27/05 Office Action, p. 17.

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Claim 9 specifies "a security fastener as a secondary and operator activated mechanical locking mechanism." Paddock et al.'s "locking screw 77" is not a security fastener (releasable only with a special key). Also, since Paddock et al. does not disclose a double locking mechanism (see claim 4 discussion above), Paddock et al. also does not disclose applicants' "security fastener as a secondary and operator activated mechanical locking mechanism."

The examiner's response to the above arguments was simply to state that Paddock et al.'s locking screw 77 constitutes a disclosure of applicants' claim-9 limitation. 01/17/05 Office Action, pp. 9-10. As explained above, it does not.

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

The prior art cited by the examiner does not disclose the limitations of claim 9. Since the limitations of claim 9 are not disclosed by the prior art, there is no way that a person skilled in the art would be motivated to incorporate such limitations in the Maruyama et al. invention.

The examiner has not established the prima facie obviousness of claim 9.

III. WHETHER CLAIMS 7 AND 21 ARE UNPATENTABLE UNDER 35 U.S.C. § 103(a) IN VIEW OF MARUYAMA et al., KLAPPER et al., AND SCLATER.

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CLAIM 7

Claim 7 reads as follows:

7. A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 wherein said mount assembly is adapted to engage a THULE® brand roof rack system.

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The examiner cites Sclater (col. 3, lines 45-53) as disclosing applicants' mount assembly adapted to engage a THULE[®] brand roof rack system as specified in claim 7. 01/27/05 Office Action, p. 18; 09/21/05 Office Action, p. 6.

Sclater does not disclose how to mount anything remotely like applicants' mount assembly on a THULE® brand roof rack system. Sclater discloses how a collapsible frame assembly can be attached to a PAIR of THULE® or YAKIMA® roof-top carriers using commercially-available parts:

"The collapsible frame assembly 10, placed into a carrier pocket 32 (an accessory such as, for example, a ski carrier) of the universal carrier mounting 14 and is secured by a suitable means therein. Each of the universal carrier mountings 14 has straps 26 which tighten and position the universal carrier mounting 14 on the roof-top of the vehicle 12 and may further be used to secure secondarily the collapsible frame assembly 10 to the universal carrier mounting 14." Col. 3, lines 50-59.

Tying down a collapsible frame assembly to a pair of roof-rack carriers is not a disclosure of something like applicants' mount assembly being adapted to engage a THULE® brand roof-rack system.

The examiner's response to the above argument was to reiterate his original conclusion that "Sclater discloses a vehicular roof-top collapsible display frame assembly for mobile advertising, which uses the well-known "Thule" or "Yakima" trademarked roof-top carriers (Column 3, Lines 45-53)." 01/27/05 Office Action, p. 10.

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

The prior art cited by the examiner does not disclose the limitations of claim 7. Since the limitations of claim 7 are not disclosed by the prior art, there is no way that a person skilled in the art would be motivated to incorporate such limitations in the Maruyama et al. invention.

The examiner has not established the prima facie obviousness of claim 7.

CLAIM 21

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Claim 21 reads as follows:

21. A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 wherein said mount assembly mates to a YAKIMA^R brand roof rack system.

The examiner cites Sclater (col. 3, lines 45-53) as disclosing the mating of applicants' mount assembly to a YAKIMA® brand roof rack system as specified in claim 21. 01/27/05 Office Action, pp. 17-18; 09/21/05 Office Action, p. 6.

Sclater does not disclose how to mate anything remotely like applicants' mount assembly to a YAKIMA® brand roof rack system. Sclater discloses how a collapsible frame assembly can be attached to a PAIR of THULE® or YAKIMA® roof-top carriers using commercially-available parts:

"The collapsible frame assembly 10, placed into a carrier pocket 32 (an accessory such as, for example, a ski carrier) of the universal carrier mounting 14 and is secured by a suitable means therein. Each of the universal carrier mountings 14 has straps 26 which tighten and position the universal carrier mounting 14 on the roof-top of the vehicle 12 and may further be used to secure secondarily the collapsible frame assembly 10 to the universal carrier mounting 14." Col. 3, lines 50-59.

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Tying down a collapsible frame assembly to a pair of roof-rack carriers is not a disclosure of something like applicants' mount assembly being mated to a YAKIMA® brand-roof rack system.

The examiner's response to the above argument was to reiterate his original conclusion that "Sclater discloses a vehicular roof-top collapsible display frame assembly for mobile advertising, which uses the well-known "Thule" or "Yakima" trademarked roof-top carriers (Column 3, Lines 45-53)." 01/27/05 Office Action, p. 10.

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

The prior art cited by the examiner does not disclose the limitations of claim 21. Since the limitations of claim 21 are not disclosed by the prior art, there is no way that a person skilled in the art would be motivated to incorporate such limitations in the Maruyama et al. invention.

The examiner has not established the prima facie obviousness of claim 21.

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IV. WHETHER CLAIM 11 IS UNPATENTABLE UNDER 35 U.S.C. § 103(a) IN VIEW OF MARUYAMA et al., KLAPPER et al., AND KURIAN.

5 **CLAIM 11**

Claim 11 reads as follows:

11. A mobile pan and tilt camera and display-control apparatus as claimed in claim 10 wherein each slip clutch comprises:

a rotationally free gear;

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a support housing for gear;

a friction pad co-aligned to said gear between said gear and said support housing;

a wave washer to apply a pressure against said rotationally free gear and said support housing of sufficient force to enable a motor to drive said gear and said support housing to a point where said support housing stops rotating and said rotationally free gear breaks friction of said friction pad while said motor continues to drive without overheating.

The examiner argues that alone among the cited references, "Kurian discloses an adjustable free motion friction clutch, which has a free rotation control, a friction disc 16, washer 24 (Figures 1-2, 5, Column 2, Lines 30-67)." 01/27/05 Office Action, p. 18; 09/21/05 Office Action, p. 7.

Kurian does not disclose (see Figs. 1, 2) a slip clutch comprising (1) a rotationally free gear, (2) a support housing for gear, (3) a friction pad co-aligned to said gear between said gear and said support housing, and (4) a wave washer to apply a pressure against said rotationally free

gear and said support housing of sufficient force to enable a motor to drive said gear and said support housing to a point where said support housing stops rotating and said rotationally free gear breaks friction of said friction pad while said motor continues to drive without overheating.

The examiner's response to the above argument was simply to reiterate his original conclusion: "Kurian discloses an adjustable free motion friction clutch, which has a free rotation control, a friction disc 16, washer 24 (Figures 1-2, 5, Column 2, Lines 30-67)." 01/27/05 Office Action, p. 11.

The examiner was unable to find in Kurian a rotationally free gear, a support housing for the gear, and a wave washer. The examiner found a friction disc (or pad) but its location vis-à-vis a gear and a support housing is not disclosed since neither a gear nor a support housing is disclosed by Kurian.

The limitations of claim 11 are not disclosed by Kurian.

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"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

The prior art cited by the examiner does not disclose the limitations of claim 11. Since the limitations of claim 11 are not disclosed by the prior art, there is no way that a person skilled in the art would be motivated to incorporate such limitations in the Maruyama et al. invention.

The examiner has not established the prima facie obviousness of claim 11.

V. WHETHER CLAIMS 12 AND 16 ARE UNPATENTABLE UNDER 35 U.S.C. § 103(a) IN VIEW OF MARUYAMA et al., KLAPPER et al., SERGEANT et al. AND KENNEDY et al.

5 **CLAIM 12**

Claim 12 reads as follows:

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12. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1

10 further comprising a camera enclosure with bezel opening that is threaded to accept optical filters and is sealed with an o-ring for moisture blocking.

The examiner cites Kennedy et al. as disclosing applicants' "camera enclosure with bezel opening that is threaded to accept optical filters." 09/27/99 Office Action, page 6, 12; 09/21/05 Office Action, p. 8. The passage cited by the examiner is:

"A 1.5 micrometer edge filter 34 along with a 0.7 neutral density optical filter 36 are placed in the lens." Kennedy et al., col. 5, lines 23-24.

Note that the passage describes placing the filter in the lens, not the camera enclosure 20. The passage does not say anything about a bezel opening threaded to accept optical filters. In short, Kennedy et al. does not disclose the claim-12 limitation quoted above.

The examiner cites Sergeant et al. as disclosing applicants' "o-ring" for sealing the optical filter in a bezel opening in the camera enclosure. 09/27/99 Office Action, page 6, 12; 09/21/05 Office Action, pp. 7-8. But Sergeant et al.'s o-rings are used to seal the ends of the camera enclosure and have nothing to do with sealing an optical filter into an opening in the camera enclosure. Sergeant et al., Abstract. The combination of Kennedy et al. and Sergeant et al.

of the camera and the camera enclosure ends sealed with o-rings. Compare this combination with applicants' camera within a camera enclosure, the <u>camera enclosure</u> having a threaded bezel opening to accept an optical filter, the filter being sealed in the bezel opening with an o-ring.

The combination proposed by the examiner is not the invention claimed by applicants in claim 12. If the combination of the prior art does not result in applicants' claimed invention, there can be no issue of obviousness.

CLAIM 16

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Claim 16 reads as follows:

16. A mobile pan and tilt camera and display-control apparatus as claimed in claim 12 wherein said camera enclosure is adapted to act as an additional heat sink.

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The examiner states in his 09/27/99 Office Action, page 12:

"As for claim 16, Schnee, Schilling, and Lucas do not mention a camera housing acting as an additional heat sink. Sergeant also does not explicitly mention a heat sink. Instead, he uses an o-ring seal to protect the camera housing from the environment. However, Kennedy discloses this necessity in column 5, lines 13-15."

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The examiner states in his 09/21/05 Office Action, p. 8:

"Regarding claim 16, Kennedy et al discloses the camera enclosure is adapted to act as an additional heat sink (Column 5, Lines 4-9)."

The passages from Kennedy et al. cited by the examiner read as follows:

"The cooling air enters at air connection 22 and passes through air line 24 to inside of housing 20 which surrounds the camera head and yoke assembly 10, and channels the air to lens 28." Kennedy et al., col. 5, lines 13-16.

"Camera head and yoke assembly 10 is housed in protective enclosure 20 to protect it from ambient heat near the boiler or kiln 14. enclosure 20 is made from one half inch thick nylon, but any other material having a good high temperature resistance and low hear conductivity properties could be used." Kennedy et al., col. 5, lines 4-9.

Housing 20 which channels cooling air to a lens is not acting as a heat sink. Protective enclosure 20 is acting as a heat shield—not a heat sink. The two excerpts do not constitute a disclosure of camera apparatus "wherein a camera enclosure acts as an additional heat sink."

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According to the Manual of Patent Examining Procedure, obviousness can be established only if each limitation of the claim is described by at least one of the prior-art references:

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

Since none of the prior art cited by the examiner disclose the limitation of claim 16, the examiner has not established a *prima facie* case of obviousness.

VI. WHETHER CLAIM 13 IS UNPATENTABLE UNDER 35 U.S.C. § 103(a) IN VIEW OF MARUYAMA et al., KLAPPER et al., AND McMAHON.

CLAIM 13

Claim 13 reads as follows:

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13. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 further comprising a Field of View (FOV) stabilized camera which provides an electronic compensation to overcome mechanical gear backlash and vibration.

The examiner cites McMahon as disclosing applicants' "Field-of-View (FOV) stabilized camera." 09/27/99 Office Action, p. 13; 09/21/05 Office Action, p. 8.

McMahon discloses the use of a gyro-stabilized camera system. McMahon, col. 1, line 11. A gyro-stabilized camera system is <u>not</u> a field-of-view stabilized camera. A gyro-stabilized camera maintains a fixed perspective in an inertial frame of reference. Anthony Lawrence, *MODERN INERTIAL TECHNOLOGY, Navigation, Guidance, and Control*, 2nd Ed., p. 11, Springer-Verlag, New York, N.Y. (1998). A field-of-view stabilized camera controls the orientation of the camera so that the field of view remains invariant. *See* User's Manual, Sony Model EV1330T Camera.

According to the Manual of Patent Examining Procedure, obviousness can be established only if <u>each</u> limitation of the claim is described by at least one of the prior-art references:

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165

USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

Since none of the prior art cited by the examiner disclose the limitation of claim 13, the examiner has not established a *prima facie* case of obviousness.

VII. WHETHER CLAIM 15 IS UNPATENTABLE UNDER 35 U.S.C. § 103(a) IN VIEW OF MARUYAMA et al., KLAPPER et al., AND BAUMEISTER.

5 **CLAIM 15**

Claim 15 reads as follows:

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15. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 further comprising a bimetal heat sink for camera power supply temperature control.

The examiner argues that Baumeister's disclosure of "heat sink 14 support cooler 10 for cooling imager chip 8 (Figure 2, Column 3, Lines 55-63)" is a disclosure of the claim-15 limitation. 01/27/05 Office Action, p. 19; 09/21/05 Office Action, p. 9.

Baumeister does not disclose a BIMETAL heat sink as specified in claim 15.

The examiner's response to applicants' argument was simply to reiterate his original rationale for rejecting claim 15: "Baumeister discloses heat sink 14 which supports cooler 10 for cooling imager chip 8." 01/27/05 Office Action, p. 11.

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

The examiner ignores the "bimetal" modifier of "heat sink" in claim 15. Baumeister's heat sink 14 is simply a structural member (presumably made of a heat-conductive material) for supporting cooler 10 with no indication of a bimetal construction. Baumeister's support member 14 is not a disclosure of applicants bimetal heat sink

The prior art cited by the examiner does not disclose the limitations of claim 15. Since the limitations of claim 15 are not disclosed by the prior art, there is no way that a person skilled in the art would be motivated to incorporate such limitations in the Maruyama et al. invention.

The examiner has not established the prima facie obviousness of claim 15.

VIII. WHETHER CLAIM 17 IS UNPATENTABLE UNDER 35 U.S.C. § 103(a) IN VIEW OF MARUYAMA et al., KLAPPER et al., AND BALKWILL et al.

5 **CLAIM 17**

Claim 17 reads as follows:

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17. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 wherein said camera enclosure incorporates a one-way moisture passage plug with flexible and sealed passage for wires.

The examiner cites Balkwill et al. as disclosing applicants' camera enclosure that "incorporates a one-way moisture passage plug with flexible and sealed passage for wires." 01/27/05 Office Action, p. 19; 09/21/05 Office Action, p. 9.

First of all, Balkwill et al. is not analogous art:

"In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). MPEP § 2141.01(a).

The subject matter of Balkwill et al. are electrical boxes for installation in the walls and ceilings of buildings. Balkwill et al.'s invention concerns an electrical box cover which prevents air, water, or moisture from passing through or around the electrical box when installed in a wall or ceiling.

Applicants' invention is concerned with a means for allowing the <u>one-way</u> passage of moisture from a camera enclosure.

"A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem." *In re Clay*, 966 F.2d 656, 659, 23 USPQ2d 1058, 1060-61 (Fed. Cir. 1992). MPEP § 2141.01(a).

Allowing only the <u>one-way</u> passage of moisture through or around an electrical box in a wall or ceiling of a building is not a problem encountered by building architects. Thus, the Balkwill et al. disclosure is not a reference that would have commended itself to an inventor's attention in considering his problem, and the subject matter of Balkwill et al. is therefore not analogous art.

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Even if Balkwill et al. is considered to be analogous art, it does not disclose applicants' claim-17 invention. Balkwill et al.'s invention is described as follows:

"The present invention provides a cover for an electrical box having a fastening flange extending outwardly therefrom to be fastened to a structural member in the wall or ceiling. The cover extends completely around the side walls and the back wall of the box and has a flexible, thin-wall flange slanting away from the cover so that the peripheral edge of the flange can tightly contact the back surface of the wall or ceiling panel in which the box is mounted. In this manner, air and water or moisture are prevented from entering through the box itself and also around the box through the opening in the wall or ceiling in which the box is mounted. Similarly, heated air is prevented from escaping." Balkwill et al., col. 1, lines 28-40.

The Balkwill et al. invention whereby "air and water or moisture are prevented from entering through the box itself and also around the box through the opening in the wall or ceiling in which

the box is mounted" does not prevent "air and water or moisture" from exiting the box. Thus, Balkwill et al. does not disclose a <u>one-way</u> moisture passage plug with flexible and sealed passage for wires as specified by claim 17.

The examiner's response to the above argument was to reiterate his original rationale for rejecting claim 17: "The Examiner considers that Balkwill et al. does disclose this feature. Balkwill et al. discloses an electrical box, which prevents moisture from entering the box." 01/27/05 Office Action, p. 11.

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"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

The prior art cited by the examiner does not disclose the limitations of claim 17. Since the limitations of claim 17 are not disclosed by the prior art, there is no way that a person skilled in the art would be motivated to incorporate such limitations in the Maruyama et al. invention.

The examiner has not established the *prima facie* obviousness of claim 17.

IX. WHETHER CLAIM 20 IS UNPATENTABLE UNDER 35 U.S.C. § 103(a) IN VIEW OF MARUYAMA et al., KLAPPER et al., AND TOVI.

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CLAIM 20

Claim 20 reads as follows:

20. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1

further comprising an optically clear or tinted sphere enclosing said camera.

The examiner cites Tovi as disclosing "a transparent globe 12, which contains camera 30 (Figure 2, Column 4, Line 63 - Column 5, Line 29)." 01/27/05 Office Action, p. 20; 09/21/05 Office Action, p. 10.

Tovi does not disclose an optically clear or tinted sphere enclosing a camera as specified in claim 20. Tovi discloses a globe 12 which is coated with matte or glossy black paint 58 over a large portion of the interior of the globe. Col. 5, lines 25-28. Black paint does not produce a clear or tinted sphere.

The examiner responded to the above argument by stating that he "considers that Tovi does disclose this feature. Tovi discloses globe 12 is transparent at the lower part of the globe with the transparent film 56 (see Figure 2, Column 5, Lines 21-25). It is noted that the black paint 58 is only provided on the interior at the upper part of the globe 12, not covered the whole interior of the globe 12." 01/27/05 Office Action, p. 12.

The examiner reads the limitation of claim 20 as further comprising a sphere enclosing said camera, the sphere being at least partially optically clear or tinted. But this is not the

limitation of Claim 20. The plain meaning of claim 20 is that the sphere in its entirely is optically clear or tinted, and Tovi does not disclose such a sphere.

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

The prior art cited by the examiner does not disclose the limitations of claim 20. Since
the limitations of claim 20 are not disclosed by the prior art, there is no way that a person skilled
in the art would be motivated to incorporate such limitations in the Maruyama et al. invention.

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The examiner has not established the prima facie obviousness of claim 20.

X. WHETHER CLAIM 23 IS UNPATENTABLE UNDER 35 U.S.C. § 103(a) IN VIEW OF MARUYAMA et al., KLAPPER et al., AND YANG.

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CLAIM 23

Claim 23 reads as follows:

23. A mobile pan and tilt camera and display-control apparatus as claimed in claim 2

wherein said mount assembly is adaptable to a rail road locomotive attachment.

The examiner cites Yang as disclosing "a video surveillance train car, which includes camera 138 (Figure 17, Column 8, Lines 1-5). 01/27/05 Office Action, p. 20; 09/21/05 Office Action, p. 10.

Yang does not disclose a camera mount assembly which is adaptable to a railroad locomotive attachment as specified in claim 23.

The examiner cites Fig. 17 and col. 8, lines 1-5 as disclosing this limitation but apparently overlooked col. 7, lines 67-68, which together with the material cited by the examiner states that "video surveillance system 132 comprises a video transmitter 134 on board SATELLITE CAR 12... [which] comprises a camera 138. Nothing is said about the camera mounting system being adaptable to mounting on the satellite car 12 let alone to mounting on the locomotive of train 10.

The examiner's response to the above argument was to reiterate his original rationale for rejecting claim 23: "The Examiner considers that Yang does disclose this feature. Yang

discloses a video surveillance train car, which includes camera 138 (Figure 17, Column 8, Lines 1-5). This reads on the limitation in claim 23." 01/27/05 Office Action, p. 12.

Yang DID disclose camera 138 but DID NOT disclose anything regarding said mount assembly being adaptable to a rail road locomotive attachment.

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

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The prior art cited by the examiner does not disclose the limitations of claim 23. Since the limitations of claim 23 are not disclosed by the prior art, there is no way that a person skilled in the art would be motivated to incorporate such limitations in the Maruyama et al. invention.

The examiner has not established the *prima facie* obviousness of claim 23.

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XI. WHETHER CLAIM 25 IS UNPATENTABLE UNDER 35 U.S.C. § 103(a) IN VIEW OF MARUYAMA et al., KLAPPER et al., AND KUJIRADA.

CLAIM 25

Claim 25 reads as follows:

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- 25. A process for viewing a scene with mobile pan or tilt camera of claim 1 comprising the steps of:
- [1] mounting said camera to a vehicle for capturing mobile images;

 displaying said captured mobile images on an image display screen;
 - [2] controlling camera position from within said vehicle;

capturing said captured mobile images in an image capture box for storage and transmission of said captured mobile images; and

- [3] transmitting said captured mobile images by radio frequency transmission to a data storage server for further processing; and
- [4] providing said captured mobile images on internet server for official or consumer access.
- The prior art cited by the examiner does not disclose the limitations in boldface.

Limitations [1] and [2]

As discussed above under Ground of Rejection I, Maruyama et al.'s camera system is designed for easy use by household users (paragraph [0012]) in a variety of ways: namely,

camera attached to VTR element, the control, display, and record element of Maruyama et al.'s invention (Fig. 3), camera mounted on a rod and held high above crowd (Fig. 20), camera mounted on electrically-powered pole head in conference room (no indication of pan and tilt capability) (Fig. 21), camera positioned under water (Fig. 22), camera mounted on an individual's head (Fig. 23), camera mounted on the side of a car (Fig. 24), camera positioned to face spot frequented by small animals (paragraph [0051]), camera handheld to take extremely high angle shots or low angle shots without individual having to assume uncomfortable posture (paragraph [0052]), camera mounted on tripod (mounting screw shown in figure)(Fig. 54), camera mounted to tree branch by clip support (Fig. 57), camera mounted underwater on ultra-small submarine (Fig. 58), camera mounted to exterior car surface (Fig. 59), and camera mounted to individual's arm by an armband (Fig. 60).

It would appear that Maruyama et al. have invented an extremely versatile camera system which can be used in a variety of ways by an individual without burdening the individual with large and heavy equipment. The examiner argues that a person skilled in the art would be motivated to add Klapper et al.'s backpack-sized gimbaled pointing system to Maruyama et al.'s diminutive camera system in order to achieve a larger camera field-of-view. But adding a pointing device to a camera does not affect the field-of-view of a camera. It simply enables Maruyama et al.'s camera system to do what it does in a more mechanized fashion and at a significant cost in size, weight, complexity, and operating flexibility.

There does not appear to be any rational basis for incorporating Klapper et al.'s pointing device in Maruyama et al.'s camera system and applicants' fully-rotatable pan-and-tilt camera is not an obvious combination of Maruyama et al.'s and Klapper et al.'s inventions. Thus, the

disclosure in Klapper et al. concerning the mounting of Klapper et al.'s night vision system on a vehicle is not a disclosure of the mounting of applicants' claim-1 camera to a vehicle. And the disclosure in Klapper et al. of controlling Klapper et al.'s night vision system is not a disclosure of controlling applicants' claim-1 camera position.

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Limitation [3]

The examiner cites Kujirada (Abstract and Fig. 1) as disclosing applicants' limitation [3], "transmitting said captured mobile images by radio frequency transmission to a data storage server for further processing." 01/27/05 Office Action, p. 21. What Kujirada actually discloses is: "Video data, position coordinate data, date data, and vehicle data from each vehicle 3-5 are transmitted through a radio communication network AND AN INTERNET 1 to a video managing computer 2 . . . " Kujirada, Abstract. Transmitting the captured images to a processing data storage server by radio frequency transmission is not the same as transmitting video data to a managing computer first through a radio communication network and then through a network (i.e. internet 1).

Kujirada does not disclose applicants' limitation [3].

Even if limitation [3] were disclosed by Kujirada, there would be no motivation for a person skilled in the art to combine the inventions of Maruyama et al. and Kujirada. The problem solved by the Kujirada invention is "to provide a video filled with a sense of presence in outdoor according to the taste or request of a user by image pick-up of a scene viewed from a vehicle, and transmitting it by radio in real time while maintaining relative position data." Kujirada, Abstract. The Maruyama et al. invention, however, has to do with providing a

recording device with video camera for household users that is easy to use. How does transmitting video by radio in real time benefit a household user who is interested in an easy-to-use recording device for use with a video camera?

The examiner's argument for combining the inventions seems to be simply that it can be done. But this would not be sufficient to motivate a person skilled in the art in making such a combination..

There is nothing in either Maruyama et al. or Kujirada that would motivate a person skilled in the art to combine the two inventions and thereby obtain the equivalent of applicants limitation [3].

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Limitation [4]

The term "internet" referred to in limitation [4] is the well-known Internet, the global communications network consisting of thousands of networks typically interconnected with fiber optic cabling. Internet 1 referred to in Kujirada seems to be a more-or-less ordinary communication network. There is nothing in Kujirada that suggests limitation [4], "providing said captured mobile images on internet server for official or consumer access."

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"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

The prior art cited by the examiner does not disclose the limitations in boldface of claim 25. Since none of the boldface limitations of claim 25 are disclosed by the prior art, there is no

way that a person skilled in the art would be motivated to incorporate such limitations in the Maruyama et al. invention.

The examiner has not established the prima facie obviousness of claim 25.

CONCLUSIONS

This patent application must qualify as one of the most thoroughly examined patent applications in the history of the patent office. It has resided in the patent office now for over seven years. Two separate searches of the prior art were performed by the original examiner who decided that none of the claims were patentable.

An appeal to the Board of Patent Appeals and Interferences resulted in the reversal of the examiner's rejection of all 25 claims of the application. After applicants' successful appeal, the examiner reopened prosecution of the application and finally rejected 23 of the 25 claims (including the only independent claim) based on a new primary reference. Applicants once again appealed to the Board.

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Based on applicants' Appeal Brief, the examiner reopened prosecution once again based on a new primary reference, and applicants are now requesting the reinstatement of the appeal.

After each of four searches of the prior art, the responsible examiner has argued that applicants claims are obvious and therefore unpatentable. The examiner responsible for the first two searches was reversed by the Board. The examiner responsible for the third search reversed himself after reviewing applicants' Appeal Brief and presumably performed a fourth search resulting in the new reference Maruyama et al. which is now the focus of the present appeal.

The examiner has rejected all of applicants' claims as being obvious in view of the new reference Maruyama et al. in various combinations with previously-cited references. To establish prima facie obviousness, one must have a disclosure of each of the claim limitations by the prior art, motivation on the part of a person skilled in the art to combine the prior-art references, and a reasonable probability of success in accomplishing the combination: This, the examiner has been

unable to do.

The examiner's rejection of claims 1-25 should be reversed.

CLAIMS APPENDIX

- 1. A mobile pan and tilt camera and display-control apparatus comprising:
- a fully rotatable camera attached to a mount assembly that is mounted to a vehicle for capturing mobile images;
 - a display-control box having an image display screen and control buttons for controlling said camera and its movement, said display-control box being attached to an adjustable mount in said vehicle within an operator's view and reach;

an image capture box for receiving said captured mobile images.

2. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 wherein full rotation is achieved by mounting said camera to a tilting mechanism mounted on a panning mechanism.

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- 3. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 wherein said mount assembly incorporates a quick disconnect mechanism.
- 4. A mobile pan and tilt camera and display-control apparatus as claimed in claim 3

 further comprising a double locking mechanism on said mount assembly where one mechanism is a security fastener.

- 5. A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 further comprising a water seal attached to said tilting mechanism.
- 6. A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 wherein said mount assembly is adapted to engage the roof-rack of a vehicle.
 - 7. A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 wherein said mount assembly is adapted to engage a THULE® brand roof rack system.
- 10 8. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 further comprising a ball-plunger for self-locking said mount assembly.
 - 9. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 further comprising a security fastener as a secondary and operator activated mechanical locking mechanism for said mount assembly.

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- 10. A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 further comprising a singular support for both said panning mechanism and said tilting mechanism and separate drive gears and slip clutches for both said panning mechanism and said tilting mechanism.
 - 11. A mobile pan and tilt camera and display-control apparatus as claimed in claim 10

wherein each slip clutch comprises:

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- a rotationally free gear;
- a support housing for gear;
- a friction pad co-aligned to said gear between said gear and said support housing;
- a wave washer to apply a pressure against said rotationally free gear and said support housing of sufficient force to enable a motor to drive said gear and said support housing to a point where said support housing stops rotating and said rotationally free gear breaks friction of said friction pad while said motor continues to drive without overheating.
- 12. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 further comprising a camera enclosure with bezel opening that is threaded to accept optical filters and is sealed with an o-ring for moisture blocking.
 - 13. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 further comprising a Field of View (FOV) stabilized camera which provides an electronic compensation to overcome mechanical gear backlash and vibration.
 - 14. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 wherein said camera may be mounted at any angle with respect to gravity.

15. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 further comprising a bimetal heat sink for camera power supply temperature control.

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- 16. A mobile pan and tilt camera and display-control apparatus as claimed in claim 12 wherein said camera enclosure is adapted to act as an additional heat sink.
- 17. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 wherein said camera enclosure incorporates a one-way moisture passage plug with flexible and sealed passage for wires.

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- 18. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 wherein said display-control box has a set of control buttons positioned to be operated with a single hand.
 - 19. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 wherein said display-control box has a viewing angle adjustment lever positioned to be operated with said single hand.
 - 20. A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 further comprising an optically clear or tinted sphere enclosing said camera.
- 21. A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 wherein said mount assembly mates to a YAKIMA^R brand roof rack system.

- 22. A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 wherein said mount assembly includes an adapter plate to mate to a light bar used on emergency and patrol guard vehicles.
- 23. A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 wherein said mount assembly is adaptable to a rail road locomotive attachment.

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- 24. A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 wherein said mount assembly includes an adapter plate for ship-board attachment.
- 25. A process for viewing a scene with mobile pan or tilt camera of claim 1 comprising the steps of:

mounting said camera to a vehicle for capturing mobile images;

displaying said captured mobile images on an image display screen;

controlling camera position from within said vehicle;

capturing said captured mobile images in an image capture box for storage and transmission of said captured mobile images; and

transmitting said captured mobile images by radio frequency transmission to a data storage server for further processing; and

providing said captured mobile images on internet server for official or consumer access.

EVIDENCE APPENDIX

There is no evidence submitted pursuant to §§ 1.130, 1.131, or 1.132 of Title 37 nor is there any other evidence entered by the examiner and relied upon by applicant in the appeal.

RELATED PROCEEDINGS APPENDIX

The examiner's earlier rejection of all 25 claims was the subject of Appeal No. 2000-1719. The Decision on Appeal follows. The opinion in support of the decision being entered today was <u>not</u> written for publication and is <u>not</u> binding precedent of the Board.

Paper No. 13

MAILED

UNITED STATES PATENT AND TRADEMARK OFFICE

DEC 1 0 2003

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

PAT. & T.M. OFFICE BOARD OF PATENT APPEALS

AND INTERFERENCES parte GREGORY E. JOHNSTON and ARIE LEVINKRON

Appeal No. 2000-1719 Application No. 09/059,077

ON BRIEF

Before JERRY SMITH, RUGGIERO, and GROSS, Administrative Patent Judges.

GROSS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 through 25, which are all of the claims pending in this application.

Appellants' invention relates to a mobile pan and tilt camera and display-control apparatus including a display-control box being attached to an adjustable mount in the vehicle within an operator's view and reach, and the box having an image display screen and control buttons for controlling the camera. Claim 1 is illustrative of the claimed invention, and it reads as follows:

- 1. A mobile pan and tilt camera and display-control apparatus comprising:
- a fully rotatable camera attached to a mount assembly that is mounted to a vehicle for capturing mobile images;
- a display-control box having an image display screen and control buttons for controlling said camera and its movement, said display-control box being attached to an adjustable mount in said vehicle within an operator's view and reach;

an image capture box for receiving said captured images.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Tovi	4,225,881		Sep.	30.	1980
Balkwill et al. (Balkwill)	4,408,695		_		1983
Yang	4,578,665			•	1986
Kennedy et al. (Kennedy)	4,695,881				1987
Baumeister	4,739,409		Apr.	-	
McMahon	5,093,677		Mar.	•	
Sergeant et al. (Sergeant)	5,107,286	•	Apr.	•	
Lucas et al. (Lucas)	5,111,289		May	•	
Kormos et al. (Kormos)	5,598,207		Jan.	•	
Conway et al. (Conway)	5,652,849		Jul.	•	
Klapper et al. (Klapper)	5,729,016		Mar.	•	
Paddock et al. (Paddock)			Apr.		
Schnee	5,751,344				
	5,751,544	/£41=4	May		
Kurian	5,762,556	(filed			
	3,702,330	1617 . 1		-	1998
Schilling of al /Schilling	E 072 EE7	(filed			
Schilling et al. (Schilling)	5,8/3,55/	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			1999
		(filed	Aug.	11,	1997)

Claims 1 through 25 stand rejected under 35 U.S.C. § 103 as being unpatentable. As evidence of obviousness the examiner applies Schnee, Schilling, and Lucas for claims 1, 2, 5, 14, 18,

19, and 24. To the combination of Schnee, Schilling, and Lucas, the examiner adds the following:

Paddock for claims 3, 4, 8, and 9,
Klapper for claims 6, 7, 21, and 22,
Kormos for claim 10,
Kormos and Kurian for claim 11,
Sergeant and Kennedy for claims 12 and 16,
McMahon for claim 13,
Baumeister for claim 15,
Balkwill for claim 17,
Tovi for claim 20,
Yang for claim 23, and
Conway for claim 25.

Reference is made to the Examiner's Answer (Paper No. 12, mailed March 14, 2000) for the examiner's complete reasoning in support of the rejections, and to appellants' Brief (Paper No. 11, filed December 20, 1999) for appellants' arguments thereagainst.

OPINION

As a preliminary matter we note that appellants indicate on page 9 of the Brief that claims 1, 2, 14, 18, 20, 24, and 25 are to stand or fall together, and that each of claims 3 through 13,

15 through 17, 19, and 21 through 23 is to stand or fall separately. In accordance with 37 C.F.R. § 1.192(c)(7) and (8) appellants also have argued each of claims 1, 3 through 13, 15 through 17, 19, and 21 through 23 separately. Therefore, we will treat claims 1, 2, 14, 18, 20, 24, and 25 as a single group with claim 1 as representative, and we will treat each of the remaining claims individually.

We have carefully considered the claims, the applied prior art references, and the respective positions articulated by appellants and the examiner. As a consequence of our review, we will reverse the obviousness rejections of claims 1 through 25.

As to representative claim 1, appellants argue (Brief, pages 13-16) that none of the references teaches combining the camera controls and the display in the same box. Appellants contend (Brief, page 14) that Schnee's suggestion to locate camera controls "adjacent to" the monitor would not motivate one to combine the two in the same display box. Appellants (Brief, page 14) question why a skilled artisan would mount the camera controls and the display of Schnee in the same box rather than mount the camera controls based on physical accessibility by the user and the display based on visual accessibility by the user.

The examiner states (Answer, page 11) "[a]ccording to In re Larson, 144 USPQ 347 (CCPA 1965), integrating the claimed display-control box is not patentable. Making the display-control box integral does not produce an [sic] different result. Doing so is a matter of engineering choice." Appellants (Brief, pages 15-16) have attempted to distinguish over In re Larson. Specifically, appellants explain that in In re Larson "two functionally-related parts that are rigidly secured together in the prior art . . . [are] claimed as an integrated unit in the application." On the other hand, in the present case, appellants assert that no prior art discloses the camera controls and the display being secured together. Appellants, therefore, conclude (Brief, page 16) that In re Larson "provides no legal precedent for concluding obviousness in the present case."

The examiner has not indicated how the facts of this case correspond to those of *In re Larson* nor addressed the differences pointed out by appellants. Case law should not be cited as, a per se rule without applying the facts. Since the examiner provides no evidence of obviousness for the integration of the display and the camera controls in a single box, relies on *In re Larson* without applying the facts of this case thereto, and fails

to address the arguments provided by appellants, we cannot sustain the rejection of claim 1, and the claims grouped therewith, claims 2, 14, 18, and 24, over Schnee, Schilling, and Lucas. In addition, since none of the additional references overcomes the deficiencies noted as to claim 1, we likewise sustain the rejections of claims 3 through 13, 15 through 17, 19 through 23, and 25.

We note that for many of the dependent claims the examiner points to where the element recited in each claim can be found in an additional reference (Tovi, Balkwill, Yang, Kennedy, Baumeister, McMahon, Sergeant, Kormos, Conway, Klapper, Paddock, or Kurian), but fails to point to any teaching in that reference as to why the skilled artisan would have used the element in the structure of the primary combination. Merely that another has used an element is insufficient motivation for combining it with other devices. A factual inquiry whether to modify a reference must be based on objective evidence of record, not merely conclusionary statements of the examiner. See In re Lee,

277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002).

Furthermore, regarding the examiner's response to arguments, merely repeating the rejection (see, for example, Answer, pages 15 and 18) or, worse yet, referring appellants to an Office

Action (see, for example, Answer, page 19) is not a proper response to appellants' arguments.

CONCLUSION

The decision of the examiner rejecting claims 1 through 25 under 35 U.S.C. § 103 is reversed.

REVERSED

Administrative Patent Judge

Administrative Patent Judge

ANITA PELLMAN GROSS

Administrative Patent Judge

BOARD OF PATENT **APPEALS** AND INTERFERENCES

GREGORY E JOHNSTON 1528 MONTEVAL PLACE SAN JOSE, CA 95120

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